

REMARKS

In accordance with the foregoing, claims 1, 5, 10-12, 14, 16-19 and 22 are amended. Claims 22 and 23 are added. No new matter is added. Claim 13, 15 and 20 are cancelled without prejudice. Claims 1, 2, 5-7, and 10-12, 14, 16-19, and 21-24 are pending and under consideration.

CLAIM OBJECTIONS AND NEW CLAIMS

Claims 10 and 11 are objected to and have not been treated on the merits because they depend from claims 1, 2, and 5, claim 5 being also a multiple dependent claim. Claims 10 and 11 are amended herewith such that they no longer depend from claim 5. In order to preserve the scope of the claims, claims 23 and 24 depending from claim 5 reciting the same features as claims 10 and 11 are added. No new matter is added. In view of these amendments, Applicants respectfully request the objection to claims 10 and 11 be withdrawn, and claims 10 and 11 be examined on the merits.

CLAIM REJECTIONS UNDER 35 USC § 103

Claims 1, 2, 5-7 and 10-22 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2005/0233173 to Odamura et al. (hereinafter "Odamura") in view of U.S. Patent No. 6,951,027 to Kikuchi et al. ("Kikuchi").

Independent claim 1 is amended herewith to clarify the claimed subject matter. No new matter is believed to be added, the claim amendments being supported by the originally filed application.

Amended independent claim 1 is directed to an optical disk having a printing layer formed by applying printing ink on a printing base material, the printing ink facing a substrate, and then laminating the printing ink onto the substrate.

A printing layer enabling highly fine printing is achieved because the printing layer being laminated onto the substrate after the printing ink has been applied onto the printing base material to form the printing layer. In addition, the optical disk has a printing layer with excellent durability because the printing ink is placed under the printing base material ("facing the substrate"), i.e. the printing ink is inserted between the printing base material and the substrate.

Moreover, the substrate of the optical disk according to amended claim 1 has peripheral edges protected by resin coating and/or by being shaped into a curve, which makes the optical

disk have excellent humidity resistance and weather resistance. Applicants found no evidence that any of the applied references, Odamura and Kikuchi, renders obvious these features.

Odamura discloses an intermediate transfer recording medium 1 having a transferring part 5 (including a stripping layer 3 and a receptive layer 4). The receptive layer 4 of the intermediate transfer recording medium 1 forms an image when heated by a thermal head. However, the receptive layer 4 disclosed in Odamura is a layer on which an image is formed after manufacturing of the intermediate transfer recording medium 1 is completed. In contrast, the printing layer of the claimed optical disk is produced by applying the printing ink before manufacturing of the optical disk is completed.

In addition, Odamura's teachings significantly differ from the claimed features according to which the printing ink is inserted between the substrate and the printing base material. In Odamura, the receptive layer 4 which forms an image is located as an outermost layer of the intermediate transfer recording medium 1.

Kikuchi discloses an optical information medium which may correspond to an optical disk before printing thereon. Kikuchi's optical information medium has an ink receptive layer 8 for printing thereon at a later time, to have the ink of the imprint as an outermost layer of the optical disk. In addition, Kikuchi discloses that the second white printing layer 7 is cured by irradiating ultraviolet light thereon, after printing, i.e. after completing manufacturing the optical disk (please see column 2, lines 25 to 55 in Kikuchi). Thus, in Kikuchi, printing occurs after the manufacturing of the optical disk is completed, and, therefore, Kikuchi fails to anticipate or render obvious the claimed optical disk.

In addition, Kikuchi is silent about "the substrate [having] peripheral edges protected by resin coating or by attaching a resin cover and/or by being shaped into a curve" as recited in amended claim 1.

At least for these reasons, amended independent claim 1 and claims 2, 5-7, 10, 11, 23 and 24 depending directly or indirectly from claim 1 patentably distinguish over the prior art references, Odamura and Kikuchi.

Independent claim 12 is directed to a manufacturing method of an optical disk. Independent claim 12 is amended herewith to clarify the claimed subject matter. No new matter is believed to be added, the claim amendments being supported by the originally filed application.

Amended independent claim 12 patentably distinguishes over the prior art at least by reciting "printing sheet laminating in which a printing layer included in the printing sheet is provided on the substrate including the resin-impregnated paper or resin-coated paper by laminating the printing sheet with resin-impregnated paper in which a resin is impregnated into paper or resin-impregnated paper in which the surface of the paper is coated with a resin, such that the printed surface of the printing base material faces the substrate."

In other words, the printing layer is laminated such that a surface on which the printing ink is applied faces the substrate. By laminating the printing layer in this manner, the printing base material is disposed to be an outermost layer of the optical disk, and the printed surface is disposed between the substrate and the printing base material. As a result, the printing base material serves as a protective layer for the printed surface, thereby obtaining an optical disk with a printing layer having excellent durability.

Both Odamura and Kikuchi are silent about manufacturing a printing layer which has been printed previously, and laminating the printing layer onto the substrate to obtain an optical disk, and laminating the printing layer to the substrate, with arranging the printing layer such that the printed surface faces the substrate.

Applicants believe the teachings of Odamura's paragraph [0035], as referenced in the Office Action, are mis-understood in the Office Action. In paragraph [0035], Odamura teaches that the transfer recording medium 1 illustrated in FIGS. 1 and 2 is formed by lamination. However, Odamura fails to render obvious the claimed manufacturing process (a non-limiting embodiment of which is illustrated in FIGS. 7-8 of the application). In particular, paragraph (0035] of Odamura does not specify when the printing is performed, and whether there is a mutual relationship between the lamination and the cutting.

Even if the Odamura's and Kikuchi's teachings are combined, the combination does not render obvious all the features recited in claim 12. Therefore, claim 12 and claims 14, and 16-18 depending from claim 12 patentably distinguish over the prior art.

Independent claim 19 is amended herewith to clarify the claimed subject matter. No new matter is believed to be added, the claim amendments being supported by the originally filed application.

In view of the above discussion of the prior art, amended independent claim 19 and claims 21 and 22 depending from claim 19 patentably distinguish over the prior art at least because the following features recited in claim 19 are not rendered obvious by Odamura and Kikuchi:

- a printing layer provided on at least one side of the substrate, having a printing base material and a printed ink applied to a surface of the printing base material facing the substrate, to transfer printed images; and
- at least one release layer provided between the substrate and the recording layer and/or between the substrate and the printing layer, for separation from the substrate during disposal, wherein the substrate has peripheral edges protected by resin coating or by attaching a resin cover and/or by being shaped into a curve.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date:

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